

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough; and 2. added matter is shown by underlining.

1. (Currently Amended) Arrangement for illuminating objects with light of different wavelengths in microscopes, automatic microscopes, and equipment for fluorescent microscopy applications ~~that includes~~ comprising LED light sources for object illumination that are arranged in the illumination radiation path of the microscope or equipment,

~~characterized in that~~ further comprising

a receiving apparatus (6; 13) that is rotatable about an axis of rotation [(5)] is provided with mounts [(7)] for each of at least one LED (3; 3.1), whereby said receiving apparatus [(6)] is arranged in a housing [(1)] that can be attached to an equipment housing [(18)] or that is positioned in said equipment housing [(18)];

and in that a drive device [(9)] for defined adjustment of said receiving apparatus (6; 13) is provided such that said LED (3; 3.1) can be positioned upstream of a light emission aperture [(2)] of said housing [(1)] with the effective wavelength that is required for measurements and/or observations.

2. (Currently Amended) Arrangement in accordance with claim 1, ~~characterized in that~~ wherein said mounts ~~[[7]]~~ are embodied and attached to said receiving apparatus ~~[[6]]~~ such that the main emission direction of said at least one LED ~~(3; 3.1)~~ arranged thereon runs parallel to said axis of rotation ~~[[5]]~~.

3. (Currently Amended) Arrangement in accordance with claim 1, ~~characterized in that~~ wherein said mounts ~~[[7]]~~ of said receiving apparatus ~~[[13]]~~ are embodied such that the emission direction of said at least one LED ~~(3; 3.1)~~ arranged thereon runs radial to said axis of rotation ~~[[5]]~~.

4. (Currently Amended) Arrangement in accordance with ~~any of~~ claim~~[[s]]~~ 1 through 3, ~~characterized in that~~ wherein collimator optics ~~(11; 15)~~ and~~[[/or]]~~ a radiation homogenizer ~~(16)~~ is are provided in said equipment housing ~~[[1]]~~ in the light direction downstream of said light emission aperture ~~[[2]]~~ of said housing ~~[[1]]~~.

5. (Currently Amended) Arrangement in accordance with ~~any of~~ claim~~[[s]]~~ 1 through 3, ~~characterized in that~~ wherein at least one of said LEDs ~~(3; 3.1)~~ is a white light LED emitting a white light.

6. (Currently Amended) Arrangement in accordance with ~~any of~~ claim~~[[s]]~~ 1 through 5, ~~characterized in that~~ wherein a Peltier cooling element ~~[[8]]~~ for cooling said LED ~~(3;~~

3-1) is provided arranged between said mount [(7)] of said receiving apparatus (6; 13) and said LED (3; 3-1) arranged thereon.

7. (Currently Amended) Arrangement in accordance with ~~any of~~ claim[(s)] 1 ~~through 5, characterized in that~~ wherein a halogen light source [(17)] or another light source is arranged on at least one mount [(7)] of said receiving apparatus (6; 13).

8. (Currently Amended) Arrangement in accordance with claim 1, characterized in that said housing is arranged on said equipment housing [(18)] using a rapid change ring in the form of a dovetail.

9. (Currently Amended) Arrangement in accordance with ~~any of~~ claim[(s)] 1 ~~through 8, characterized in that~~ wherein said at least one LED (3; 3-1) is arranged exchangeably in said mount [(7)] without ~~said~~ an associated Peltier cooling element [(8)].

10. (Currently Amended) Arrangement in accordance with ~~any of~~ claim[(s)] 1 ~~through 8, characterized in that~~ wherein said at least one LED (3; 3-1) is securely joined to said associated Peltier cooling element [(8)] and can be arranged exchangeably in said mount [(7)] together therewith.

Please add new claims 11-16 as follows:

11. (New) Arrangement in accordance with claim 1, in combination with a microscope.

12. (New) A light source for microscopes having an illumination ray path, the light source comprising:

a housing with a light emission aperture alignable with the illumination ray path;

an LED receiving apparatus rotatably mounted within the housing, the receiving apparatus having an axis of rotation;

a plurality of LEDs, the LEDs each having light emission of different spectral characteristics, the LEDs mounted to the receiving apparatus whereby one of the LEDs of the plurality of LEDs may be selectively rotationally positioned upstream of the light emission aperture.

13. (New) The light source of claim 12 wherein each of the LEDs has a main emission direction and wherein said main emission direction of each of the LEDs is aligned with the axis of rotation of the receiving apparatus.

14. (New) The light source of claim 12 further comprising at least one of collimator optics and a radiation homogenizer attached to the housing and placeable in the light emission of the LEDs.

15. (New) The light source of claim 12 further comprising a Peltier cooling element attached to an LED.

16. (New) The light source of claim 12 in combination with a microscope, the light source attached to the microscope.